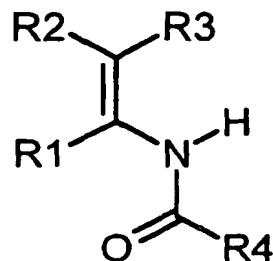


## CLAIMS

1. A process for the production of ene-amide derivatives represented by the formula (I)

5



(I)

wherein

R1 and R2 and R3 are independently a hydrogen atom, an alkyl, a cycloalkyl, a cycloalkylalkyl, an alkylaryl, an aryl, a heterocycle, a cyano, an alkoxy, an aryloxy, a carboxyl, a carbamoyl, -CONR5R6 (in which R5 and R6 are independently an alkyl, arylalkyl or aryl group or R5 and R6 taken together may form a ring) or -COOR5 group (in which R5 is an alkyl, alkylaryl, cycloalkyl, or aryl group),

15 said alkyl, cycloalkyl, cycloalkylalkyl, alkylaryl and aryl groups being substituted or not with a functional group or with R5;

or R1 and R2 taken together, may form a ring (which terms includes mono-, di- and higher polycyclic ring systems), said ring being substituted or not with a functional group or with R5;

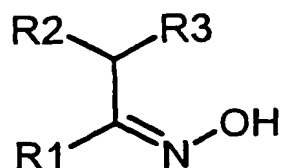
R4 is a hydrogen atom, an alkyl, an aryl, an alkylaryl, said groups are substituted or not with a halogen atom as Cl, Br, or F;

25 X is an oxygen atom or a leaving group and  
m is an integer 1 or 2;

when m is 1 then X is a leaving group; when m is 2 then X is a oxygen atom,

which comprise :

- 5 a hydrogenation/isomerization reaction in presence of a heterogeneous catalyst, of an oxime derivatives of formula (II)



(II)

10

wherein R1, R2 and R3 are as defined above with an acyl derivative of formula (III)



wherein R4, m and X are as defined above.

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2. A process according to claims 1 to 2, wherein the derivative of formula (III) is used in the amount of at least 2 times per mole based on the oxime and may be used in a large amount as a reacting agent combined with a solvent.

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3. A process according to claims 1 to 2, wherein the heterogeneous catalyst is based on metal like Pd, Ir, Pt, Rh, Ni catalyst, preferably Ir or Rh.

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4. A process according to any one of claims 1 to 3, wherein the heterogeneous catalyst is used in the form of an oxide or metallic and may be supported on a suitable carrier

and is used in the amount of 0.001 to 30% mole, based on the oxime derivative.

5 5. A process according to any one of claims 1 to 4, which is carried out in a suitable solvent.

6. A process according to any one of claims 1 to 5, which is carried out under a hydrogen pressure between 0.5 to 20 bars °C.  
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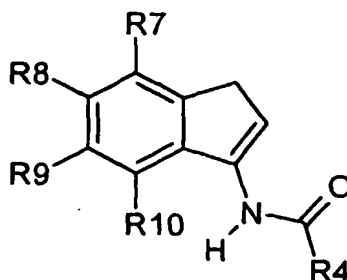
7. A process according to any one of claims 1 to 6, which is carried out under a temperature range of -20 to 150 °C, preferably between 20 °C to 120 °C.

15 8. A process according to any one of claims 1 to 7, further comprising a work up step of the organic solution of the compound of formula (I) which is a washing step with water containing organic or mineral salts without halogen atom, preferably without chloride.

20

9. A process according to claim 8, wherein the organic or mineral salts are selected among phosphate, sulfate, acetate, citrate, formate, borate, carbonate, ammonium, preferably phosphate.

25 10. Ene-amide derivative of formula (IIE)



wherein

R4 is a hydrogen atom, an alkyl, an aryl, an alkylaryl, said groups are substituted or not with a halogen atom as Cl, Br, or F;

5 R7, R8, R9 and R10, identical or different, with not simultaneously an hydrogen atom, are an hydrogen atom, a functional group, an alkyl, an aryl, preferably R7, R8 and R10 are an hydrogen atom, R9 is a methoxy and R4 is a methyl.

10 11. Use of compounds of formula (IIE) as defined in claim 10 in an hydrogenation reaction, asymmetric or not, giving an amine or amide derivative for pharmaceutical interest.